

VIBRATORY COMPACTOR AND COMPACT EXCITER ASSEMBLY
USABLE THEREWITH

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ABSTRACT OF THE DISCLOSURE

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A lightweight, easy to assemble, and compact exciter assembly for a compaction
10 device such as a drum assembly of a vibratory trench roller or the like includes a fixed
weight and one or more free swinging weights mounted on an exciter shaft, without using
any mounting hardware, so as to hold the free swinging weights axially in position while
permitting them to swing between first and second angular positions on the exciter shaft.
Preferably, the fixed weight is mounted on a central portion of the exciter shaft, and two
15 free swinging weights are mounted adjacent the ends of the fixed weight so as to be
restrained from substantial sliding movement along the exciter shaft solely by the fixed
weight and other operative components of the exciter assembly such as bearings and/or
gears or other torque transfer elements. The reduction in length afforded by this design
permits a reversible hydraulic motor to be mounted coaxially on the end of the exciter
20 shaft without unacceptably increasing the overall length of a drum assembly, thereby
further simplifying the machine's assembly and facilitating maintenance or repair of the
machine.